

Datasheet for ABIN3134788

MTF2 Protein (AA 1-593) (Strep Tag)



[Go to Product page](#)

Overview

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|-------------------------------|---|
| Quantity: | 250 µg |
| Target: | MTF2 |
| Protein Characteristics: | AA 1-593 |
| Origin: | Mouse |
| Source: | Cell-free protein synthesis (CFPS) |
| Protein Type: | Recombinant |
| Purification tag / Conjugate: | This MTF2 protein is labelled with Strep Tag. |
| Application: | Western Blotting (WB), SDS-PAGE (SDS), ELISA |

Product Details

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| Brand: | AliCE® |
| Sequence: | <p>MRDSTGAGNS LVHKRSPLRR NQKTSASLNK LSLQDGHKAK KPACKFEEGQ DVLARWSDGL FYLGTIKKIN ILKQSCFIIF EDSSKSWVLW KDIQTGATGS GEMVCTICQE EYSEAPNEMV ICDKCGQGYH QLCHTPHIDS SVIDSDEKWL CRQCVFATTT KRGGALKKGP NAKALQVMKQ TLPYSVADLE WDAGHKTNVQ QCYCYCGGPG DWYLKMLQCC KCKQWFHEAC VQCLQKPMFL GDRFYTFICS VCSSGPEYLK RLPLQWVDIA HLCLYNLSVI HKKKYFDSEL ELMTYINENW DRLHPGELAD TPKSERYEHV LEALNDYKTM FMSGKEIKKK KHLFGLRIRV PPVPPNVAFK AEKEPEGTSH EFKIKGRKAS KPTSDSREVS NGIEKKGKKK SVGRPPGPYT RKMIQKTAEL PLDKESVSEN PTLDLPCSIG RTEGIAHSSN TSDVDLTGAS SANETTSASI SRHCGLSDSR KRTRTGRSWP AAIPHLRRRR GRLPRRALQT QNSEVVKDDE GKEDYQFEEL NTEILNNLAD QELQLNHLKN SITSYFGAAG RIACGEKYRV LARRVTLDGK VQYLVEWEGA TAS</p> <p>Sequence without tag. The proposed Strep-Tag is based on experience s with the expression</p> |

system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.

Characteristics:

Key Benefits:

- Made in Germany - from design to production - by highly experienced protein experts.
- Protein expressed with ALiCE® and purified in one-step affinity chromatography
- These proteins are normally active (enzymatically functional) as our customers have reported (not tested by us and not guaranteed).
- State-of-the-art algorithm used for plasmid design (Gene synthesis).

This protein is a **made-to-order protein** and will be made for the first time for your order. Our experts in the lab try to ensure that you receive soluble protein.

The big advantage of ordering our **made-to-order proteins** in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.

Expression System:

- ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from *Nicotiana tabacum* c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.
- During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!

Concentration:

- The concentration of our recombinant proteins is measured using the absorbance at 280nm.
- The protein's absorbance will be measured against its specific reference buffer.
- We use the ExPASy's ProtParam tool to determine the absorption coefficient of each protein.

Purification:

One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®).

Purity:

> 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).

Grade:

custom-made

Target Details

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|-------------------|---|
| Target: | MTF2 |
| Alternative Name: | Mtf2 (MTF2 Products) |
| Background: | <p>Metal-response element-binding transcription factor 2 (Metal regulatory transcription factor 2) (Metal-response element DNA-binding protein M96) (Polycomb-like protein 2) (mPCL2) (Zinc-regulated factor 1) (ZIRF1),FUNCTION: Polycomb group (PcG) protein that specifically binds histone H3 trimethylated at 'Lys-36' (H3K36me3) and recruits the PRC2 complex, thus enhancing PRC2 H3K27me3 methylation activity (PubMed:20144788, PubMed:21367819, PubMed:21059868, PubMed:23104054, PubMed:22438827). Regulates the transcriptional networks during embryonic stem cell self-renewal and differentiation (PubMed:20144788). Promotes recruitment of the PRC2 complex to the inactive X chromosome in differentiating XX ES cells and PRC2 recruitment to target genes in undifferentiated ES cells (PubMed:21367819). Required to repress Hox genes by enhancing H3K27me3 methylation of the PRC2 complex (PubMed:21059868). In some conditions may act as an inhibitor of PRC2 activity: able to activate the CDKN2A gene and promote cellular senescence by suppressing the catalytic activity of the PRC2 complex locally (PubMed:21059868). Binds to the metal-regulating-element (MRE) of MT1A gene promoter (PubMed:7772254). {ECO:0000269 PubMed:20144788, ECO:0000269 PubMed:21059868, ECO:0000269 PubMed:21367819, ECO:0000269 PubMed:22438827, ECO:0000269 PubMed:23104054, ECO:0000269 PubMed:7772254}.</p> |
| Molecular Weight: | 66.9 kDa |
| UniProt: | Q02395 |
| Pathways: | Stem Cell Maintenance |

Application Details

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| Application Notes: | In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though. |
| Comment: | <p>ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from <i>Nicotiana tabacum</i> c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.</p> <p>During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the</p> |

Application Details

mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!

Restrictions: For Research Use only

Handling

Format: Liquid

Buffer: The buffer composition is at the discretion of the manufacturer.
Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol **Might differ depending on protein.**

Handling Advice: Avoid repeated freeze-thaw cycles.

Storage: -80 °C

Storage Comment: Store at -80°C.

Expiry Date: 12 months